BRUHAT BENGALURU MAHANAGARA PALIKE

YELAHANKA ZONE

NAME OF WORK : IMPROVEMENTS TO ROADS AND DRAINS AT JAYAMUNI LAYOUT AND SURROUNDING AREAS IN WARD NO.01 OF YELAHANKA SUB-DIVISION

							Estimate Cost Rs.	100.00	Lakhs
	Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
1	KSRB 2-2.1 : Earth work excavation for foundation of buildings, culverts water supply, sanitary line and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5m, in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m, after breaking of clods complete as per specifications, specification, No, KBS 2.1(a) / 2.3.5, No.5/Item No. 2.3)KPWD S.R 2016-17								
	Jayamuni Layout	Cum							
	Main Road for Drain		1	260.00	0.90	1.00	234.00		
	for Culverts		1	6.00	1.65	1.30	12.87		
					Total Qty		**246.87**	222.38	**54898.31**
	Basic Rate	189.00							
	AD-HOC 11%	20.79							
	Sub-Total	209.79							
	Area Weightage @ 6%	12.59							
	Total	**222.38**							
2	KSRB 2-1.1 : Earthwork in surface excavation in **ordinary soil** for **levelling and lowering** the ground manually (other than foundation of buildings, culverts, road drains and trenches of pipe lines and cables) and removing the excavated stuff to a distance not exceeding 50m and lift upto 1.5m, excavated surface leveled and neatly dressed, disposed earth to be leveled after breaking of clods and neatly dressed as per specifications. specification. No. KBS 2.1 (a) / 2.3.1 (P.5/I.2.1)								
	Jayamuni Layout	Cum							
	for CC Roads		2	40.00	3.00	0.30	72.00		
			2	35.00	3.00	0.30	63.00		
	for Main Road (Widening portion)		1	460.00	1.00	0.40	184.00		
			1	345.00	0.80	0.40	110.40		
	Road Cut Portions		1	460.00	0.75	0.40	138.00		
			1	345.00	0.60	0.40	82.80		
	for New Road (1st Main Road)		1	165.00	6.00	0.40	396.00		
	Road cut portion		1	115.00	1.00	0.40	46.00		
					Total Qty		**1092.20**	184.73	**201758.00**
	Basic Rate	157.00							
	AD-HOC 11%	17.27							
	Sub-Total	174.27							
	Area Weightage @ 6%	10.46							
	Total	**184.73**							
3	KSRRB M100-1 Loading and Unloading of Stone Boulder / Stone aggregate /sand/kaner/ Moorum KSRRB M100-1 Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip complete as per specifications MORTH -100/ Chapter 1 (Page No.133/ Item No 17.1)								

	Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
		Cum							
						Qty Vide Item No.1+2	**1339.07**	111.00	**148637.00**
	Average Weight of Earth 1.28 Tonne/Km								
	Basic Rate Lead Charges for 10.00 Kms (2.50X1.28X10.00)	32.00							
	Add loading and unloading Item No 17.1)	68.00							
	Sub-Total	100.00							
	AD-HOC 11%	11.00							
	Total	**111.00**							
4	**Cleaning the existing black topped surface** with brooms, soft brushes and finally dusting with old gunny bags and /or compressed air to recieve bituminous treatment including cost of all materials, labour, HOM of machineries complete as per Specifications. (P.No.157 & I.No.21.2)								
	Jayamuni Layout	Sqm							
	Main Road		1	460.00	4.50		2070.00		
			1	345.00	4.20		1449.00		
	1st Main Road		1	115.00	6.00		690.00		
					Total Qty		**4209.00**	3.53	**14857.00**
	Basic Rate	3.00							
	AD-HOC 11%	0.33							
	Sub-Total	3.33							
	Area Weightage @ 6%	0.20							
	Total	**3.53**							
5	KSRRB M400-6.1. Construction of granular sub-base by providing close graded material, mixing in a mechaical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications. A. Plant Mix Method.Close graded granular sub-base material as per 400-1 For Grading- II Material (P.No.155 It.No.20.4.2)								
		Cum							
	for Main Road (Widening portion)		1	460.00	1.00	0.20	92.00		
			1	345.00	0.80	0.20	55.20		
	Road Cut Portions		1	460.00	1.00	0.15	69.00		
			1	345.00	0.80	0.15	41.40		
	for New Road (1st Main Road)		1	165.00	6.00	0.15	148.50		
	Road cut portion		1	115.00	1.00	0.15	17.25		
	Cross Cuttings		60	6.00	0.60	0.20	43.20		
					Total Qty		**466.55**	1848.44	**862389.00**
	Basic Rate	1571.00							
	AD-HOC 11%	172.81							
	Sub-Total	1743.81							
	Area Weightage @ 6%	104.63							

Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
Total	**1848.44**							
KSRRB M400- Wet Mix Macadam - KSRRB M400-17. Providing, laying, spreading and compacting graded stones aggregate to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 (P.No.158 I.No.20.18)								
	Cum							
for Main Road (Widening portion)		1	460.00	1.00	0.225	103.50		
		1	345.00	0.80	0.225	62.10		
		1	460.00	1.00	0.225	103.50		
cross cuttings		1	345.00	0.80	0.225	62.10		
for New Road (1st Main Road)		1	165.00	6.00	0.225	222.75		
		1	115.00	1.00	0.225	25.88		
Cross Cuttings		60	6.00	0.60	0.20	43.20		
				Total Qty		**623.03**	1962.57	**1222729.00**
Basic Rate	1668.00							
AD-HOC 11%	183.48							
Sub-Total	1851.48							
Area Weightage @ 6%	111.09							
Total	**1962.57**							
KSRB 4-1.3: Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.85cum and fine aggregates @ 0.57cum machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications.Specification No.KBS 4.1, 4.2 (P.12/I.4.3)								
Jayamuni Layout	Cum							
for CC Roads		2	40.00	3.00	0.15	36.00		
		2	35.00	3.00	0.15	31.50		
for Drain		1	260.00	0.90	0.15	35.10		
for Culverts		1	6.00	1.65	0.15	1.49		
				Total Qty		**104.09**	5524.14	**574979.80**
Basic Rate	4695.00							
AD-HOC 11%	516.45							
Sub-Total	5211.45							
Area Weightage @ 6%	312.69							
Total	**5524.14**							
KSRB 5.2.3 : Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6, stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications.KBS 5.1.13 (Page No. 23/ Item No. 5.6)								
	Cum							
for culverts	2	1	6.00	0.60	1.00	7.20		

Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
				Total Qty		**7.20**	4926.42	35470.25
Basic Rate	4187.00							
AD-HOC 11%	460.57							
Sub-Total	4647.57							
Area Weightage @ 6%	278.85							
Total	**4926.42**							
KSRB 15.1.1: Providing **flush pointing** to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20 mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications.(Page No.112/Item No. 15.1)								
	Sqm							
for Culverts	2	1	6.00		1.00	12.00		
				Total Qty		**12.00**	114.13	**1369.56**
Basic Rate	97.00							
AD-HOC 11%	10.67							
Sub-Total	107.67							
Area Weightage @ 6%	6.46							
Total	**114.13**							
KSRB 4-1.7 : Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs with 20mm and down size graded granite metal coarse aggregate @ 0.84cum and fine aggregate @ 0.56 cum machine mixed concrete laid in layers not exceeding 15cms, thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications, specification. No. KBS 4.1,4.2.(P No. 13 / Item No.4.7)								
for culverts	Cum							
Coping	2	1	6.00	0.60	0.10	0.72		
vent		1	6.00	0.60	0.10	0.36		
Ramp		2	6.00	0.60	0.20	1.44		
				Total Qty		**2.52**	6214.80	**15661.30**
Basic Rate	5282.00							
AD-HOC 11%	581.02							
Sub-Total	5863.02							
Area Weightage @ 6%	351.78							
Total	**6214.80**							
Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC cement at 300kgs. with 20mm and down size granite metal coarse aggregates at 0.69cum and fine aggregates at 0.43cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No.1500, 1700, 2200. -do- Wall and bottom thickness 15cm (P.No.265 / It.No.37.59.2)								
Main Road	Cum							
bed		1	260.00	0.90	0.15	35.10		
side wall		2	260.00	0.15	0.60	46.80		
				Total Qty		**81.90**	12246.05	**1002951.72**
Basic Rate	10408.00							

Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
AD-HOC 11%	1144.88							
Sub-Total	11552.88							
Area Weightage @ 6%	693.17							
Total	**12246.05**							
KSRB 4.9.2:Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost pf materials, labour, HOM of machinery complete as per specifications.Specification No. KBS 4.6.3-do-TMT Bars Fe 500 P.17/It.No.4.46.2 (rates effects from 01-07-2017)								
	tonne							
	60% of Qty Vide item No.11				in Qtl	49.140		
					in tonne	**4.914**	71310.20	**350418.30**
Basic Rate	60607.00							
AD-HOC 11%	6666.77							
Sub-Total	67273.77							
Area Weightage @ 6%	4036.43							
Total	**71310.20**							
Providing and fixing **RCC precast Slabs of 0.10 m thick of CC 1:2:4 with 20 mm** and down size graded granite metal , machine mixed , including cost of all material , labour , HOM of Machinery , curing complete								
	Sqm							
Main Road		1	260.00	0.75		195.00		
				Total Qty		**195.00**	2100.00	**409500.00**
Data Rate	**2100.00**							
Providing and fixing **RCC precast Slabs of 0.20 m thick of CC 1:2:4 with 20 mm** and down size graded granite metal , machine mixed , including cost of all material , labour , HOM of Machinery , curing complete								
	Sqm							
for Culvert		1	6.00	1.50		9.00		
				Total Qty		**9.00**	4402.79	**39625.11**
Data Rate	**4402.79**							

Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
KSRRB M600-6. Cement concrete pavement. Construction Un- reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 with 25mm and size graded granite metal , coarse and fine aggregate with superplastisiser @ 3lts conforming to IS9103-1999 Reaffirmed-2008, mixed in a concrete mixer of not less than 0.6cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). & Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved curing compound, finishing to lines and grades as per drawing complete as per specifications.(P.No.174 / It.No.22.6.2)								
	Cum							
for Cross Roads		2	40.00	3.00	0.125	30.00		
		2	35.00	3.00	0.125	26.25		
				Total Qty		**56.25**	6901.94	**388233.88**
Basic Rate	5866.00							
AD-HOC 11%	645.26							
Sub-Total	6511.26							
Area Weightage @ 6%	390.68							
Total	**6901.94**							
Providing and applying primer coat with ss bitumen emulsion on prepared surface of granular base such as WMM including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means complete as per specifications. MORTH Specification No.502 (P.No.160/It No.21.6)								
	Cum							
Main Road		1	460.00	6.00		2760.00		
		1	345.00	5.50		1897.50		
for New Road (1st Main Road)		1	165.00	6.00		990.00		
		1	115.00	1.00		115.00		
				Total Qty		**5762.50**	30.59	**176284.00**
Basic Rate	26.00							
AD-HOC 11%	2.86							
Sub-Total	28.86							
Area Weightage @ 6%	1.73							
Total	**30.59**							
KSRRB M500- 15. Providing, laying dense graded bituminous macadam using 40/60 TPH capacity H.M.P with Mechanical paver Gr-II (50mm to 75mm), crushed aggregates of specified grading premixed with 4.5% VG 30 grade bituminous binder and , transporting the hot mix to work site , laying to the required level and grade, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications MORTH Specification No.507 (P.No.162&163 It.No.21.17.6)								
	Cum							

Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
Main Road		1	460.00	6.00	0.050	138.00		
		1	345.00	5.50	0.050	94.88		
for New Road (1st Main Road)		1	165.00	6.00	0.050	49.50		
		1	115.00	6.00	0.050	34.50		
				Total Qty		**316.88**	6976.06	**2210539.00**
Basic Rate	5929.00							
AD-HOC 11%	652.19							
Sub-Total	6581.19							
Area Weightage @ 6%	394.87							
Total	**6976.06**							
KSRRB 500-7:Providing and **applying tack coat with bitumen emulsion** using 80/100 grade bitumen (VG20) on the prepared black toped suface at 2.5kg per 10 sqm, heating bitumen in boiler fitted with spray set (Excluding cleaning of road surface) including cost of all materials, labour, HOM of Machineries complete as per Specifications.(P.No.160 & I.No.21.7)								
	Sqm							
Main Road		1	460.00	6.00		2760.00		
		1	345.00	5.50		1897.50		
for New Road (1st Main Road)		1	165.00	6.00		990.00		
existing (1st Main Road)		1	115.00	6.00		690.00		
				Total Qty		**6337.50**	12.94	**82024.00**
Basic Rate	11.00							
AD-HOC 11%	1.21							
Sub-Total	12.21							
Area Weightage @ 6%	0.73							
Total	**12.94**							
KSRRB M500- 15. Providing, laying bituminousConcrete using 40/60 THP capacity H.M.P with Mechanical paver Gr-II (30mm to 45mm), crushed aggregates of specified grading premixed with 6% VG 30 grade bituminous binder and , transporting the hot mix to work site , laying to the required level and grade,rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH Specification clause No.500.9 complete in all respects complete as per specifications MORTH Specification No.509 (P.No.164 Item No.21.22.6)								
	Cum							
Main Road		1	460.00	6.00	0.040	110.40		
		1	345.00	5.50	0.040	75.90		
for New Road (1st Main Road)		1	165.00	6.00	0.040	39.60		
existing (1st Main Road)		1	115.00	6.00	0.040	27.60		
				Total Qty		**253.50**	7863.22	**1993326.00**

Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
Basic Rate	6683.00							
AD-HOC 11%	735.13							
Sub-Total	7418.13							
Area Weightage @ 6%	445.09							
Total	**7863.22**							
KSRRB M800-13: Road marking with hot applied thermoplastic compound with reflect rising glass beads on bituminous surface- providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface to level, uniform and free from streaks and holes complete as per specifications. MORTH specification No. 803, No. 1974 (P.No.181 & I.No.24.15)								
	Sqm							
		2.5	1085	0.15		406.88		
				Total Qty		**406.88**	515.35	**209683.00**
Basic Rate	438.00							
AD-HOC 11%	48.18							
Sub-Total	486.18							
Area Weightage @ 6%	29.17							
Total	**515.35**							
Miscellaneous and unforeseen charges	LS							**4666.00**
					Grand Total Amount			**10000000.00**
(Rupees Hundred Lakhs Only)								

- The site has been inspected and the work is found to be necessary.
- The data adopted are as per PW,P IWTD SR of 2016-17 and data rate of Bangalore Circle.
- The provisions were made in this estimate are necessary and adequate.
- The area comes under the Bruhat Bengaluru Mahanagara Palike Limits.
- The work is not repeated in any other programs or Grants

Assistant Engineer
Ward No.07
Rajarajeshwari Ward

Asst. Executive Engineer
Yelahanka Sub-Division
B.B.M.P
Yelahanka Zone
Bangalore

Executive Engineer
Yelahanka Division
B.B.M.P
Project Division
Yelahanka Zone
BBMP, Bangalore-92
5/3/18

Technical Sanction
Accorded For Rs 100 Lakhs only
Head of A/C 1-1808
CER NO: TS/936/17-18 Dt: 13.03.18

TA — CE (YNK)